

POSITION PAPER



## Digital Skills for Doctors - Explaining European Doctors' Position

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### ABSTRACT

The digital skills deficit in healthcare is a major topic being addressed at several instances in the EU. The new European Skills Agenda identifies as a core action the so-called "Pact for Skills" with the aim of upskilling (improving existing skills) and reskilling (training in new skills) the workforce in the next five years. The Standing Committee of European Doctors (CPME) suggests framing digital skills into three main areas: general, technical and related to patient-doctor relationship. These new skills should be reflected in the future curricula of medical faculties, in particular during specialist medical education, and integrated into continuous professional development (CPD) to keep doctors up-to-date with digital innovations.

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The digital skills deficit in healthcare<sup>1</sup> is a major topic<sup>2</sup> being addressed at several instances in the EU. In the new European Skills Agenda,<sup>3</sup> the European Commission sets out as a core action the so-called 'Pact for Skills'<sup>4</sup> with the aim of mobilising relevant actors for upskilling (improving existing skills) and reskilling (training in new skills) the workforce in the next five years. This EU cooperation initiative was translated in health with a dedicated roundtable<sup>5</sup> in which the Standing Committee of European Doctors (CPME)<sup>6</sup> took part.

In its policy paper on digital competences for doctors,<sup>7</sup> CPME suggests framing digital skills into three main areas: general, technical and related to patient-doctor relationship (see Table 1). These new skills should be reflected in the future curricula of medical faculties, in particular during specialist medical education, and integrated into continuous professional development (CPD) to keep doctors up-to-date with digital innovations. Additional digital skills should be framed and adapted to a doctor's medical speciality (for

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<sup>1</sup>See European Commission's Communication on a New Skills Agenda for Europe, COM(2016) 381 final, June 2016, <<https://ec.europa.eu/social/main.jsp?catId=1223>>, last accessed on 1 October 2021; and the report of a survey conducted by the European Parliament Committee on Digital Skills for Health Professionals in 2016 which concluded that a large majority of health professionals felt having received no training or insufficient training in digital health technology, <<https://www.healthparliament.eu/wp-content/uploads/2017/09/Digital-skills-for-health-professionals.pdf>>, last accessed on 18 September 2020.

<sup>2</sup>The eHealth Network Multiannual Work Programme 2018–2021 identifies as a main priority area "Overcoming Implementation Challenges: addressing transversal enabler issues crossing the abovementioned categories" and therein a topic on e-skills for Professionals – see eHealth Network, Multiannual Work Programme 2018 – 2021 – "eHealth in support for better health", adopted by consensus on 28 November 2017, in Brussels <[https://ec.europa.eu/health/sites/default/files/ehealth/docs/ev\\_20171128\\_co01\\_en.pdf](https://ec.europa.eu/health/sites/default/files/ehealth/docs/ev_20171128_co01_en.pdf)>, last accessed on 1 October 2021.

<sup>3</sup>European Commission, Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the European Skills Agenda for sustainable competitiveness, social fairness and resilience, COM(2020) 274 final, July 2020, <<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0274&qid=1633098357622&from=EN>>, last accessed on 1 October 2021.

<sup>4</sup>See <<https://ec.europa.eu/social/main.jsp?catId=1517&langId=en>>, last accessed on 1 October 2021.

<sup>5</sup>See European Commission's report on the round table on the "Pact for Skills Roundtable with Commissioners Kyriakides, Schmit and Breton for the health ecosystem", 16 February 2021, <<https://ec.europa.eu/social/BlobServlet?docId=23753&langId=en>>, last accessed on 1 October 2021.

<sup>6</sup>CPME represents national medical associations across Europe. CPME is committed to contributing the medical profession's point of view to EU and European policy-making through pro-active cooperation on a wide range of health and healthcare related issues. CPME is registered in the Transparency Register with the ID number 9276943405–41. More information about CPME's activities can be found under [www.cpme.eu](http://www.cpme.eu).

<sup>7</sup>see "CPME Policy on Digital Competencies for Doctors", adopted on 21 November 2020, <[https://www.cpme.eu/index.php?downloadunprotected=/uploads/adopted/2020/11/CPME\\_AD\\_Board\\_21112020\\_100.FINAL\\_CPME\\_Policy.Digital.Competencies.for\\_Doctors.pdf](https://www.cpme.eu/index.php?downloadunprotected=/uploads/adopted/2020/11/CPME_AD_Board_21112020_100.FINAL_CPME_Policy.Digital.Competencies.for_Doctors.pdf)>, last accessed on 1 October 2021.

**Table 1.** Digital competencies for doctors.

Digital competencies for Doctors		
General digital skills	Technical digital skills	Patient-doctor relationship
Data protection and ICT safety	Telemedicine	Digital communication
Problem-solving with ICT tools and software	Health apps and smart devices	
Legal and ethical considerations of health data and of using digital tools	Artificial intelligence and clinical decision support	Digital collaboration
	Data literacy/analytics and bioinformatics	Promoting digital health literacy
	Virtual and augmented reality	
	Robotics	

**Source:** CPME Policy on Digital Competencies for Doctors, 21 November 2020

example, the digital skills required for a neurosurgeon to perform a semi-automated operation are very different from the ones required for an ophthalmologist).

For CPME, current and future doctors need to be provided with new possibilities for interdisciplinary education, such as engineering, computer science, law, ethics. Developing a multi-professional core curriculum for specialist medical training and CPD would improve design, implementation and application of new technologies in healthcare. Courses should be hands-on, taking place during working time to facilitate implementation, and benefit from new online methods for learning. They should be regularly updated, assessed on their implementation and effectiveness, and if they continue to be fit for purpose. Organisational encouragement as well as financial support for innovation are indispensable for doctors' commitment to acquiring new digital skills.

CPME is committed to contributing to the debate of preparing future and current doctors for the digital healthcare transformation.<sup>8</sup> To translate its policy into practice and to support its members, CPME partnered up with European Junior Doctors (EJD) to develop a training course for future thinking and leadership, empowering the next digital leaders.

Doctors' attitudes, values and ethics as well as motivation and openness to digital solutions have a direct impact on the successful outcome of the digital transformation in health. The identification and role of digital leaders in healthcare environments is essential. They should be capable of understanding the importance of health data, innovation and technology and have the insight, energy and impetus to drive change. Digital leaders can map digital competence gaps, assist healthcare professionals with sufficient skills and

support, identify risks, as well as become mentors and provide examples for others to follow. An effective culture of innovation and learning in healthcare settings is necessary.

The training course will provide participating doctors and current leaders with an overview of emerging technologies and trends relevant for health and an introduction into how megatrends and scenarios can be applied to strategy, innovation, and risk management in the health sector. It will help shape future leaders of the biological and digital health transformation and will equip them with the skills and competencies needed to build and deliver future-proof health strategies.

CPME acknowledges that this is a small step into the vast ocean of the digital healthcare transformation. **Academics, healthcare professionals and policymakers should work together to identify the competencies** (encompassing knowledge, skills, attitudes, values and ethics) **needed in increasingly digitalised healthcare settings.**

Digital health technologies are changing the way healthcare is delivered, reshaping medical practice and the patient-doctor relationship. They will also significantly alter roles, competencies and cooperation of doctors with other healthcare professionals. The key to success is proper training, sufficient guidance, interoperability and respecting as much as possible current working processes.

## Disclosure Statement

No potential conflict of interest was reported by the author(s).

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<sup>8</sup>See "CED, CPME, EFN, EPF and PGEU Consensus Framework on the Digital Transformation of Healthcare", 1 July 2021, <<https://www.cpme.eu/wp-content/uploads/adopted/2021/7/Info.2021-096.Consensus.Framework.pdf>>, last accessed on 1 October 2021. This Consensus Framework outlines joint key recommendations for the digital transformation of healthcare in support of high-quality patient care; see "CPME Policy on Digital Competencies for Doctors", adopted on 21 November 2020, <[https://www.cpme.eu/index.php?downloadunprotected=/uploads/adopted/2020/11/CPME\\_AD\\_Board\\_21112020\\_100.FINAL\\_CPME\\_Policy.Digital.Competencies.for\\_Doctors.pdf](https://www.cpme.eu/index.php?downloadunprotected=/uploads/adopted/2020/11/CPME_AD_Board_21112020_100.FINAL_CPME_Policy.Digital.Competencies.for_Doctors.pdf)>, last accessed on 1 October 2021; see "CPME event recap 10 m video" of the 20 November 2020 conference on "Doctors Going Digital", <<https://www.youtube.com/watch?v=nKqWEFW-qzk>>, last accessed on 1 October 2021; see "CPME Policy on AI in Health Care", November 2019, <<https://www.cpme.eu/wp-content/uploads/adopted/2019/CPME.Board.Nov19.FINAL.EN.Alinhealthcare.pdf>>, last accessed on 1 October 2021.